

United States Environmental Protection Agency

Statement of Work

REGIONAL OVERSIGHT CONTRACTS

ROCS II

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1. INTRODUCTION

A: ACRONYMS

ARARs	Applicable or Relevant and Appropriate Requirements
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
CMI:	Corrective Measures Implementation
CMS:	Corrective Measures Studies
CAMU:	Corrective Action Management Units
COR	Contracting Officer's Representative
CRP	Community Relations Plan
CWA	Clean Water Act
EE/CA	Engineering Evaluation/Cost Analysis
EPA	Environmental Protection Agency
ESI	Expanded Site Inspection
FEMA	Federal Emergency Management Agency
FFA	Federal Facility Agreement
FFCA	Federal Facilities Compliance Act
FOIA	Freedom of Information Act
FRP	Federal Response Plan
FUDS	Formerly Used Defense Sites
GIS	Geographical Information System
HRS	Hazard Ranking System
IA	Integrated Assessment
IRIS	Integrated Risk Information System
IRP	Defense Installation Restoration Program
JIC	Joint Information Center
LDR	Land Disposal Restriction
MOU	Memorandum of Understanding
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NOD	Notices of Deficiencies
NPL	National Priorities List
NRT-1A	National Response Team Criteria For Review Of Hazardous Materials Emergency Plans, May 1988
OPA	Oil Pollution Act
OSHA	Occupational Safety and Health Administration
OSWER	Office of Solid Waste and Emergency Response

POLREP(S)	Pollution Report(s)
PA	Preliminary Assessment
PRP	Potentially Responsible Party
QA	Quality Assurance
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFAs	RCRA Facility Assessments
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RPM	Remedial Project Manager
RRC	Regional Response Center
SARA	Superfund Amendments and Reauthorization Act
SI	Site Inspection
SIP	Site Inspection Prioritization
SWMUs	Solid Waste Management Units
UST	Underground Storage Tank

B: BACKGROUND

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly referred to as Superfund, was enacted in December, 1980. The Superfund program provides the Environmental Protection Agency (EPA) with response authorities to facilitate the remediation of identified sites from which releases of hazardous substances have or might have occurred. The Superfund Amendments and Reauthorization Act (SARA) was enacted in October, 1986. Some important amendments, for federal facilities, added by SARA include:

- requirements for Federal Agencies to comply with CERCLA and meet mandatory schedules for investigations and cleanups;
- maintenance of an administrative record for every remedial action;
- maintenance of a Federal Agency Hazardous Waste Compliance Docket;
- requirement to evaluate and list all federal facilities which meet the criteria for listing on the National Priorities List (NPL).

Additionally, the EPA has the responsibility for assuring compliance with and corrective action under the Resource Conservation and Recovery Act (RCRA) and the Federal Facilities Compliance Act (FFCA) at all federal facilities. EPA activities under RCRA include:

- tracking the generation, transportation, storage, and disposal of hazardous wastes,
- the handling of municipal wastes,
- the regulation of underground storage tanks,
- corrective action requirements for leaking Solid Waste Management Units (SWMUs).

C. PURPOSE

The purpose of this contract is to provide advisory and assistance services to federal officials responsible for oversight and enforcement of both CERCLA and RCRA activities at federal facilities, and to a lesser extent at non-federal potentially responsible party (PRP) lead sites and at Formerly Used Defense Sites (FUDS).

D. SCOPE

The contracting officer will issue work assignments for all work required under this contract in accordance with the terms and conditions of the contract. The contractor shall submit all analyses, options, recommendations, reports, and training materials required under this contract in draft for critical review by the contracting officer or the contracting officer's representative (COR). The Government will make all final regulatory, policy, and interpretive decisions resulting from contractor-provided advice and assistance under this contract and make the final decision on all contractor provided recommendations. The contractor shall not publish or otherwise release, distribute, or disclose any work product generated under this contract without obtaining EPA's express written approval. When submitting materials or reports that contain recommendations, the contractor shall:

- explain or rank policy or action alternatives
- describe procedures used to arrive at recommendations
- summarize the substance of deliberations
- report any dissenting views
- list sources relied upon
- detail the methods and considerations upon which the recommendations are based

The contractor shall not provide any legal services to EPA under this contract, nor will the contractor make any decisions regarding compliance determinations.

II. TECHNICAL REQUIREMENTS

Technical requirements under this contract include:

- RCRA compliance
- RCRA Corrective action oversight
- CERCLA assessment support
- CERCLA Remedial activity oversight
- CERCLA Removal activity oversight

A. RCRA COMPLIANCE ACTIVITIES

The task list below addresses the generic compliance tasks which may be ordered through

work assignments. The contractor will provide technical support to EPA for RCRA compliance. More specific requirements follow the generic list for:

- Enforcement and compliance inspections
- Compliance monitoring at federal facilities
- Reviewing corrective action measures
- Collection and analysis of sample materials
- Reviewing applications for Federal hazardous waste facility permits
- Support in the drafting of permit conditions
- Conducting facility assessment oversight
- Site inspections to support implementation of RCRA permit provisions

Compliance Task List

More specifically, the contractor shall:

1. provide technical assistance to EPA in the performance of federal facility inspections of:
 - regulated generators
 - transporters
 - treatment, storage, or disposal (TSD) operationsfor RCRA compliance.
2. provide technical assistance to EPA in the performance of inspections of facilities for compliance with Subtitle C of RCRA,
3. review corrective action permit provisions, closure, and post-closure plan review, in accordance with 40 CFR Parts 264 and 270.
4. submit draft inspection reports to EPA
5. provide technical assistance in the performance of inspections of waste handlers, to evaluate the ability of the federal facilities to comply with regulations and the potential or extent of releases from these facilities. The specific inspections included under this task are listed below:
 - RCRA Facility Assessments (RFAs)--to identify and make a preliminary evaluation on releases/potential releases of hazardous waste or constituents from SWMUs or areas of concern (AOCs), in accordance with EPA's Final RFA .
 - Off-Site Policy Inspections--of TSDs to ensure compliance with acceptability standards for CERCLA wastes .
Underground Storage Tanks (UST) Inspections--to assess petroleum releases from underground tanks. The tasks shall include:
 - field oversight to document and monitor compliance of a cleanup action for initial release response activities under 40 CFR 280.60,
 - site closure under 40 CFR 280.70 to 280.73.
 - review of the owners' and operators' UST reporting and record keeping required by 40 CFR 280.34.

- Multi-Media Inspections--which are comprehensive inspections that cover air and water program regulations, as well as RCRA regulated waste releases to the environment.
 - Land Disposal Restriction (LDR) Inspections--to perform a compliance review specifically targeted to the LDR regulations on testing, record keeping, notification or certification, and storage requirements.
6. Sampling Inspections-- includes oversight of facility sampling procedures, splitting samples with the facility, or providing sample analysis.
 7. Sampling and Analysis Plan-- the Contractor shall develop and submit a sampling and analysis plan to EPA for critical review, comment, and approval. The Contractor shall also submit a:
 - Quality Assurance Project Plan (QAPjP)
 - site Health and Safety Plan (HSP)
 8. assist in the sampling and analysis of all media
 9. provide technical support for unique situations such as explosives, chemical agents (i.e. mustard gas, etc.), or radioactive materials.
 10. record all details noted during each site visit or inspection and during sample collection efforts.
 11. provide data validation for sample data obtained from sampling events.
 12. provide a data management plan for each sampling or sample analysis assignment.

A-1. RCRA Compliance Activities

RCRA enforcement includes inspections of regulated generator, transporter, and treatment, storage or disposal (TSD) facilities. The Contractor shall provide technical assistance to EPA in compliance monitoring at federal facilities as outlined in the Compliance Task List above.

Permitting--Subtitle C of RCRA requires EPA to develop, promulgate, and implement regulations which control the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also provides for states to receive authorization from EPA to carry out a hazardous waste program in lieu of the Federal program.

The Contractor shall:

- 1.) review applications for federal hazardous waste facility permits,
- 2.) draft permit conditions
- 3.) conduct facility assessments and site inspections
- 4.) review corrective action permit provisions, closure, and post-closure plans, in accordance with 40 CFR Parts 264 and 270.

A-2. RCRA Corrective Action Oversight

The contractor shall assist EPA with RCRA corrective action oversight. The task list

below addresses the generic assessment tasks which may be ordered through work assignments in support of Section II.A-2. More specific requirements follow the generic list for:

- Review and evaluation
- RCRA Facility Assessments (RFAs)
- Risk Assessments
- RCRA Facility Investigations (RFIs) Workplan and Report Reviews

Oversight Task List

The contractor shall:

1. review and evaluate federal facility submittals in relation to the Corrective Action Program at the facility.
2. evaluate the completeness and technical accuracy of any risk assessments conducted by the facility for any of the stages of the Corrective Action process.
3. evaluate the completeness and technical level of facility's investigation, sampling, and assessment plans, to include:
 - Review the workplans and reports for compliance with the corrective action requirements.
 - submit draft RFI comment reports on the facility plan reviews conducted.
 - characterize the contamination and risks to human health and the environment in the draft RFI comment report.
5. review the Corrective Measures Studies (CMS) Workplan and Report Reviews, for compliance with the corrective action order or permit.
6. submit CMS comment reports on the facility plan reviews conducted.
7. review the Corrective Measures Implementation (CMI)- Remedial Design (RD) requirements in the Hazardous and Solid Waste Amendments (HSWA) permit for that facility under the Corrective Measures Implementation Section
8. review the Corrective Measures Implementation Plan submitted by the facility to the regulator.
9. review requests for Corrective Action Management Units (CAMU)
 - evaluate facilities' minimum technology requirements, treatment standards and ground water monitoring requirements.
 - review the requirements of 40 CFR Part 264, Subpart S, 264.552 and any other pertinent permitting requirements.
10. review Interim Measures (IM) Workplan or Report Reviews and:
 - evaluate interim measures implementation for mitigation of actual or potential threats to the environment
 - evaluate the success of corrective measures implementation (CMI).
 - review the workplans and reports, including progress reports, for compliance with the corrective action order or permit.
 - submit IM comment reports on the facility plan reviews.
11. provide field oversight of the facility's corrective actions (RFI, CMS, IM, CMI),

including:

- construction activity or closure which is conducted voluntarily or under an enforcement order or permit.
 - assess compliance with orders, construction specifications, regulations, and safety plans; report noncompliance activities
 - provide field notes and photographs from the scene to document the oversight
 - conduct sampling or split sampling with the facility while on-scene
12. assess petroleum releases from underground tanks. Provide field oversight to document and monitor compliance of a cleanup action for initial release response activities. The same requirements apply for UST.
13. provide other technical assistance such as:
- conduct sampling and analysis activities;
 - assess compliance with EPA and state standards for federal hazardous waste generators, transporters, and TSD facilities;
 - prepare reports and studies related to waste management programs.

A-3. Technical Review, Analysis, Evaluation, and Support

The task list below addresses the generic assessment tasks which may be ordered through work assignments. More specific requirements follow the generic list for:

- Technical Review of Documents
- Closure Plan (CP) Reviews
- Geological and Hydrogeological Analyses
- Permit Reviews and Analyses
- Evaluation of Responses to Notices of Deficiencies
- RCRA Facility Plan Reviews
- Waste Characterization Reports
- Facility Profiles for Stabilization Initiative

Support Task List

The contractor shall:

1. evaluate the RCRA compliance status of a facility by reviewing facility information and site-specific data; and evaluating the extent of, or potential for, releases from SWMUs at federal facilities.
2. maintain databases of facility compliance data.
3. evaluate the facility's performance under RCRA enforcement orders or permits:
4. review and evaluate the draft and final RFI, CMS, and IM workplan and reports for compliance with the corrective action order or permit. (The same requirements apply for RFI, CMS and IM as mentioned in Section 3.4. RCRA Corrective Action Oversight.);
5. review progress reports submitted during the RFI, CMS, and IM phases;
6. review and evaluate workplans, progress reports, and final reports for compliance with

- CMI requirements. The Contractor shall submit comment reports of its findings to EPA for Agency critical review and approval.
7. review and evaluate closure plans for compliance with the requirements of 40 CFR Part 265 Subpart G to include;
 - the technical adequacy of soil or ground water sampling,
 - analytical results and conclusions presented in the CPs;
 - appropriateness of clean closure standards.
 8. review closure, post-closure, contingency, waste analysis, and ground water monitoring or leak detection plans submitted by the facility.
 9. evaluate plans according to closure certification requirements and EPA guidance (provided to the Contractor by EPA), and draft notices of deficiencies (NODs) itemizing the additional work required of the applicant.
 10. Provide geological and hydrogeological analyses. The Contractor shall:
 - analyze the relationships between the physical surroundings and hydrogeological settings and the wastes and recommend to EPA appropriate protective measures (e.g., permit conditions, corrective actions, or penalty assessments).
 - submit comment reports of its findings to EPA.
 11. Draft and review RCRA permit, closure, and variance applications for completeness and technical adequacy as required by RCRA regulations. The applications will cover a variety of hazardous waste practices including:
 - storage in containers or tanks,
 - treatment in tanks,
 - thermal and biological treatment processes,
 - disposal in landfills,
 - surface impoundments,
 - injection wells, land application,
 - ocean dumping
 12. review permits, closure plans, variances, and related materials such as exposure information reports
 13. prepare letter reports of findings :
 - evaluating whether sufficient information is included in the application to conduct a full technical evaluation;
 - evaluating whether the facility has provided the technical evidence necessary to meet the RCRA permitting standards.
 - 14.. provide review of Notices of Deficiencies (NOD):
 - a written evaluation of the responses of applicants to NODs and making recommendations for further action.
 - assist EPA in follow-up meetings with applicants and community groups.
 15. perform permit reviews of applications for Research Development and Demonstration (RD&D) permits, in accordance with 40 CFR Part 270.65.
 16. evaluate whether the technologies satisfy the regulatory requirements for new and innovative technology.
 17. review the facility's permit or other pertinent plan(s) approved by the Administrative

- Authority, as required by the RCRA permit/order.
18. evaluate the completeness and technical level of the facility's ground water monitoring, sampling, and assessment plans and submit a report of its findings.
 19. submit a waste characterization report to be used by EPA to determine whether the waste is hazardous under either state or Federal regulations. Hazardous substance is defined by Section 101 (14) of CERCLA and appears in CFR 40 Part 300-399 Revised as of July 1, 1998 (or as amended).
 20. perform special studies as determined to support EPA Headquarters and Regional initiatives, pursuant to the Federal Facility Compliance Act.
 21. analyze previous studies to identify any data gaps requiring special studies; these may include field and laboratory activities
 22. report all data gaps to EPA
 23. support the goal of the Stabilization Initiative to prevent or minimize the further spread of contamination at RCRA facilities, while long-term corrective action remedies are pursued. The contractor shall:
 - assist in preparing data profiles of each Federal facility site to be stabilized.
 - The information on each site will be extracted from existing site information (RFA report, CEIs, etc.)
 - assist EPA staff in technical review panels to review stabilization proposals and design plans.

B. FEDERAL FACILITY CERCLA ASSESSMENT SUPPORT

The task list below addresses the generic assessment tasks which may be ordered through work assignments in support of Sections II.B.1. through II.B-4. More specific requirements follow the generic list for:

- Site Specific Material Reviews
- Preliminary Assessment Reviews
- Site Inspection Reviews
- Expanded Site Inspections
- Combined Preliminary Assessment/site Inspection
- Reviewing submittals/Hazardous Waste Compliance Docket
- Prepare/Review Hazard Ranking System/National Priorities List Packages

Assessment Task List

The contractor shall:

1. review pre-NPL Preliminary Assessment/Site Inspection (PA/SI) documents presented to EPA by Federal facilities under CERCLA/SARA and the Defense Installation Restoration Program (IRP) for consistency with CERCLA/SARA, the NCP, and the HRS.

2. gather non-sampling data to fill data gaps that the federal agency is unable or unwilling to provide.
3. In some circumstances, the Contractor will be required to actually perform the PA and/or SI at the Federal facility, in accordance with the appropriate guidance, publication “Guidance for Performing Preliminary Assessments Under CERCLA”, September 1991,(EPA 9345.0-01A) EPA publication “Guidance for Performing Site Inspections Under CERCLA; Interim Final, September 1992, (NTIS PB92-963375, EPA 9345.1-05), and the electronic scoring program known as PA-Score.
4. review site-specific materials prepared by the Federal facility and provided to the Contractor by EPA, including the PA and/or SI report, for compliance with utilizing the following documents: OSWER Directive 9345.0-01A - Preliminary Assessment Guidance, PA/SI Checklist, Site Inspection Guidance, Regional Guidance, and other supporting documents.
5. identify to the Region in a written report, any necessary information not provided by the Federal facility. The Contractor shall be required to fill in missing data gaps if the facility fails to provide the information to EPA.
6. complete a draft HRS score of the site, following the prescribed formulas provided by EPA.
7. complete the Regional Federal Facility Review Form, including recommendation for further action(s) to be taken at the site; references and HRS score sheets shall be attached to the report.
8. incorporate EPA comments and finalize the PA/SI Review document for final EPA review and approval.

B-1 CERCLA Assessment Support

The contractor shall perform federal facility CERCLA assessment support as outlined in the task list above.

B-2. Preliminary Assessments (PA)

The contractor shall review or perform PA activities, in conformance with:

OSWER Directive 9345.0-01A, “Guidance for Performing Preliminary Assessments Under CERCLA”, dated September 1991; and,

Region-specific requirements, available in Region's library.

More specifically, the contractor shall:

- a. review past and present facility waste handling practices and permit history

- b. document the presence, quantity, type, or absence of uncontained or uncontrolled hazardous substances on site, and releases to the environment
- c. identify pollution dispersal pathways; determine pathway-specific receptors and surrounding population density
- d. locate other environmentally sensitive receptors (for example, wetlands and endangered species)

B-3. Site Inspection Reviews

The purpose of the SI is to incorporate and build upon the objectives of a PA, and may require the collection of samples or the evaluation of existing analytical data to evaluate site conditions. The contractor shall review or perform SI activities in conformance with:

EPA/540-R-92-021, "Guidance for Performing Site Inspections Under CERCLA", dated September 1992; and,

Region specific requirements, available in Region's library.

More specifically the contractor shall:

- a. identify releases that pose a significant threat to public health or the environment
- b. analyze the potential need for removal action
- c. collect or develop data for the COR to evaluate the release pursuant to the HRS
- d. collect data required for the COR to better characterize the release for more effective and rapid initiation of the remedial investigation/feasibility Study (RI/FS) or response

B-4. Expanded Site Inspections (ESI)

The purpose of the Expanded Site Inspections (ESI) is to provide the additional information required to support preparation of an HRS package for NPL listing. The contractor shall perform the relevant tasks for an ESI as described in the Assessment Task List in conformance with the following:

EPA 540-R-92-021, "Guidance for Performing Site Inspections Under CERCLA", dated September 1992

Region-specific requirements, available in Region's library

B-5. Combined PA/SI

As ordered, the contractor shall perform preliminary activities outlined in the PA and SI sections above into one effort.

B-6. Federal Agency Hazardous Waste Compliance Docket

The Contractor shall review the submittals to assure that all sites which are supposed to be added to the docket have been included and that there is complete documentation as to why the federal facility sites were added to the docket. In examining proposed revisions, the Contractor shall:

- Identify any privately owned facilities that are now government operated;
- Identify facilities that do not have identification numbers;
- Identify duplicate listings;
- Verify data with new docket entries such as the correct address, correct federal agency, correct site name, and appropriate documentation; and,
- Verify that sites are not Small Quantity Generators;

The Contractor shall provide a written summary of the docket review for use by the EPA Regional Docket Coordinator.

B-7. Reviewing Hazard Ranking System (HRS) Scoring for Federal Facilities

The contractor shall perform the relevant HRS/NPL tasks described in the Assessment Task List in conformance with the following:

EPA OSWER Directive 9345.1-07, November 1992, "The Hazard Ranking System Guidance Manual"

The Contractor shall recommend the best technical approaches (e.g., sampling locations) that would produce the most defensible HRS data and prepare a draft HRS Package according to EPA guidance (including site summary, computerized HRS score sheets, documentation record, figures, maps, and references).

C. OVERSIGHT COMPLIANCE OF RI/FS ACTIVITIES

The task list below addresses the generic compliance oversight tasks which may be ordered through work assignments in support of Sections II.C.1. through II C-4. More specific requirements follow the generic list for:

- Review Treatability Studies
- Baseline Risk Assessment
 - Assessment of Human Health Risks
 - Assessment of Ecological Risks
- Provide On Site Support

- Review Remedial Investigation Reports
- Provide RI/FS Support
- Review Feasibility Study Reports

C-1. Treatability Studies

Treatability studies are conducted to:

- obtain data to develop and evaluate treatment alternatives
- support the design of selected response alternatives
- reduce cost and performance uncertainties for treatment alternatives

The contractor shall:

- a. be on location where the treatability test(s) is conducted and observe the actual test,
- b. review the report on the treatability study for accuracy and provide comments and recommendations to the EPA concerning any possible discrepancies and when apparent non-compliance is observed.
- c. review treatability study test plans and procedures for technical adequacy in accordance with EPA guidance cited below.
- d. maintain a detailed log of all field observations, including all apparent incidents where activities not consistent with the Treatability Study Work plan and EPA guidance are observed, and shall advise the EPA WAM when these incidents occur.

The contractor shall perform treatability studies in conformance with the following:

“Guide for Conducting Treatability Studies Under CERCLA”, EPA/540/R-92/071A
OSWER DIRECTIVE-9380.3-10, NTIS Order Number: PB93-126787INX

C-2. Baseline Risk Assessment

For PRP sites, the contractor shall review or prepare the baseline risk assessment, including completion of the RAGS Part D standardized tables. For federal facility-lead sites, the Contractor shall review the baseline risk assessment. The Contractor shall support EPA with any or all of the responsibilities listed below:

- toxicity and effects of the hazardous substances present,
- the contaminant fate and transport,
- the potential for human exposure,
- the risk of potential impacts or threats on human health or the environment

The contractor shall provide risk assessment support in accordance with the following guidance:

- the Integrated Risk Information System (IRIS); and
- the Health Effects Assessment Summary Tables (HEAST);

For Baseline Human Health Risk Assessments:

Risk Assessment Guidance for Superfund (RAGS), Volume I: Human Health Evaluation Manual: Part A, Baseline Risk Assessment. Interim Final. December 1989. EPA 540/1-89/002. NTIS PB90-155581.
Part B, Development of Risk-Based Preliminary Remediation Goals. December, 1991. EPA 540/R-92/003. OSWER Directive 9285.7-01B. NTIS PB92-963333,
Part C, Risk Evaluation of Remedial Alternatives. December 1991. EPA/540/R-92/004. OSWER Directive 9285.7-01C. NTIS PB92-963334,
Part D, Standardized Planning, Reporting and Review of Superfund Risk Assessments. January 1998. EPA 540-R-97-033. OSWER Directive 9285.7-01D. NTIS PB97-963305; and

Supplemental Guidance to RAGS: Calculating the Concentration Term. June 22, 1992. OSWER Directive 9285.7-08I.

C-3. Human Health Risk Assessment

For federal facility-lead sites, the contractor shall review the human health risk assessment and other interim draft deliverables prepared by the federal facility. For PRP-lead sites, the Contractor shall conduct the human health risk assessment. Development of the human health risk assessment consists of the four sequential components described below:

- Data collection and evaluation - review all data on hazardous substances found at the site, identify the contaminants of concern, and present the data in a tabulated format. For PRP-lead sites, prepare a technical memorandum listing all hazardous substances present at the site and the Contractor's suggested contaminants of concern with the known ambient concentrations (e.g., background concentrations).
- Exposure assessment and documentation - identify or review data on actual and potential receptors, exposure points, and pathways. For each exposure point, the release source, transport media (e.g., soil, air, groundwater, etc.), and exposure route (e.g., oral, dermal, etc.) shall be clearly delineated.
- Toxicity assessment and documentation - utilize information from IRIS, HEAST, and similar data bases to develop or review a toxicity assessment of the contaminants of concern. This assessment (report) shall include:
 - 1.) types of adverse health effects and/or environmental effects associated with chemical exposures
 - 2.) relationships between magnitude of exposures and adverse effects

- 3.) related uncertainties of contaminant toxicity (e.g., the weight of evidence for a chemical's carcinogenicity).
- Risk characterization - integrate the ambient concentrations and average and reasonable maximum exposure assumptions with the information developed during the exposure and toxicity assessment to characterize and quantify the current and potential risk to human health posed by the site. The risk characterization shall clearly identify and discuss uncertainties, including those associated with contaminants, toxicities, and exposure assumptions.

C-4. Ecological Risk Assessment

The risk to the environment from exposure to contaminants shall be addressed. The Contractor shall be tasked to:

- conduct the ecological risk assessment for PRP lead sites
- review the ecological risk assessment prepared by the federal facility
- provide any comments in a written report.

See the following sources for guidance:

- “Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessment.” Interim Final dated June 5, 1997
- “Risk Assessment Guidance for Superfund, Volume II, Environmental Evaluation Manual,” Interim Final dated March 1989
- “Guidance for Data Useability in Risk Assessment” Interim Final dated October 1990

Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03. March 25, 1991.

Final Guidance Data Useability in Risk Assessment (Part A). April 1992. OSWER Directive 9285.7-09A. NTIS PB92-963356.

Guidance for Data Useability in Risk Assessment (Part B). May 1992. OSWER Directive 9285.7-09B. NTIS PB92-963362.

Dermal Exposure Assessment: Principles and Applications. January 1992. EPA 600/8-91/011B.

Exposure Factors Handbook, Volumes 1,2,3. 1997. EPA/600/P-95/002Fa.

Air/Superfund National Technical Guidance Study Series, Volumes I, II, III, and IV (EPA 450/1-89-001,002,003,004, July 1989).

Final Soil Screening Guidance, May 17, 1996. Soil Screening Guidance User's Guide. Office of Solid Waste and Emergency Response. EPA/540/R-96/018.

Soil Screening Guidance: Technical Background Document. EPA 540/R-94/126.

EPA Risk Characterization Program. Memorandum from Administrator Carol Browner. Office of the Administrator, Washington, DC. March 21, 1995.

Provisional Guidance for Quantitative Risk Assessment of Polycyclic Aromatic Hydrocarbons. Office of Research and Development, Washington, DC. EPA/600/R-93/C89.

PCBs: Cancer Dose-Response Assessment and Application to Environmental Mixtures. Office of Research and Development, Washington, DC. EPA/600/P-96/001A.

Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. July 14, 1994. OSWER Directive 9355.4-12.

Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments. June 1997. EPA/540-R-97-006.

Ecological Assessment of Hazardous Waste Sites: A Field and Laboratory Reference Document. EPA 600/3-89/013. March 1989.

EcoUpdate: Intermittent Bulletins, Supplemental Guidance to RAGS, Vol. II. EPA Publications 9345.0-051.

C-5. On-Site Oversight Support

The Contractor shall perform oversight of field activities in accordance with the Oversight Compliance Task List listed above (page 15) and with the FFA or order between the EPA, state, and Federal facility or PRP conducting the RI/FS. Areas of responsibility include:

- support EPA during oversight of RI/FS field operations,
- perform assigned QA/QC responsibilities which focus on the oversight of Federal facility or PRP compliance with the governing QAPjP for the site or with Standard Operating Procedures (SOP).
- observe the gathering of potentially contaminated material for the study
- evaluate whether the proper chain of custody and contaminants analysis procedures are employed
- monitor the disposal of the investigation-derived waste
- provide on-site removal activity oversight

C-6. Remedial Investigation Report Review

- review the technical aspects of the draft Remedial Investigation Report. This consists of a review of all report information on:
 - sampling,
 - analyses,
 - QA procedures for accuracy,by comparing it to guidance specifications and to the oversight records on these procedures.
- prepare detailed comments noting all discrepancies and deficiencies (in the draft report) and comment on the adequacy of the data collected and the adequacy of the site characterization, with recommendations for additional field work, if warranted.

C-7. RI/FS Support

The purpose of an RI/FS is to develop the data necessary to support the selection of a remedy to eliminate, reduce, or control risks to human health and the environment. EPA makes all decisions on the selection of a remedy. The contractor shall perform the relevant RI/FS tasks in conformance with the following:

“EPA Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final”, U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive No. 9355.3-01. (or as amended)

The contractor shall conduct a technical review of any segments of the draft or completed Work plan. Work plan review includes the following:

- evaluate whether the Federal facility or PRP has structured the draft in the format specified in RI/FS guidance and has followed the RI/FS scope of work as stated in Appendix C of the RI/FS guidance, including the technical criteria, specific statistical sampling density and requirements and procedures, appropriate sample analyses, QA/QC plans, and Health & Safety Plans.
- comment on whether the draft schedule for completing the RI/FS will comply with the schedule set forth in the Federal Facility Agreement (FFA).
- prepare detailed comments noting all discrepancies and deficiencies in the draft work plan.
- support EPA in its review and consolidation of other comments received on the draft Work plan, such as those made by the state.
- perform review of Remedial Investigation (RI) reports

C-8. Feasibility Study (FS) Report Review

The Contractor shall:

- evaluate the FS and the conclusions presented. The Contractor shall evaluate whether all applicable technologies are included in the discussion of preliminary remediation alternatives, and if treatability study findings are accurately addressed, if one was conducted.
- review engineering data and cost analyses for accuracy of remedial technologies described and accuracy of cost projections, and the ARAR evaluation for each alternative.
- review the documented remedial alternatives screening process and provide an evaluation as to whether viable technologies were omitted and if unsuitable technologies were recommended.
- review the comparative analysis results of treatment choices against the evaluation criteria for accuracy and completeness. The Contractor shall prepare detailed comments on all discrepancies and deficiencies identified in the FS, and shall provide these comments to the EPA WAM.
- support EPA in reviewing and consolidating other comments received on the draft FS, such as those made by the state.
- EPA will make its recommendations regarding the FS to the Federal facility or PRP. The Contractor shall be available to provide technical input during these presentations. The Contractor shall also review subsequent FS drafts and evaluate whether EPA recommendations have been incorporated.

D. RD/RA OVERSIGHT ACTIVITIES

The contractor shall assist EPA in overseeing the effectiveness of the implemented remedy. Required oversight services shall include: field inspections, removal oversight, sampling, sample analysis, data validation, development of health and safety plans and QA/QC plans, implementation of chain of custody procedures, preparation of reports, evaluation of training of on-site personnel operating equipment associated with the remedial action, monitoring of the effectiveness of remedy, review any modifications of remedy; or the oversight of these activities. The task list below addresses the generic RD/RA and removal oversight tasks which may be ordered through work assignments in support of Section II.D. More specific requirements follow the generic list for:

- Remedial Design Evaluations
- Remedial Action Evaluations
- Post Remedial Action Evaluations
- Oversight of Removal Actions

D-1 Remedial Design Evaluation Task List

More specifically, the contractor shall:

1. review the technical aspects of the proposed remedial design approach.
The Contractor shall consider the following factors:
 - Technical requirements of the Record of Decision (ROD), ARARs, order or FFA;
 - Generally accepted environmental protection measures and technologies;
 - Standard professional engineering practices;
 - Completeness, construct-ability and bid-ability;
 - Applicable statutes, EPA policies, directives, and regulations;
 - Evaluation of pre-design and design data;
 - Evaluation of the proposed siting of the remedy, disposal site and mitigation areas and consideration of any site constraints or unique features;
 - Design calculations to assess professional quality of design activities (achieved by spot checks); and,
 - Whether the planning and construction schedules meet project completion goals.
2. follow up with a written report(s)
3. Review and provide comments to EPA on the Work Plan(s), sampling and analyses plan(s), QAPjP(s), and other plans developed by the federal facility or PRP.
4. Provide field oversight for pre-design and design sampling activities.
5. Observe sampling activities for compliance with the FFA, IAG, or settlement documents and approved sampling and analysis plan(s) and QAPjP(s). Any apparent deviations from the FFA, IAG, settlement documents, or the approved plans shall be verbally reported to EPA and then documented in a trip report.
6. Maintain a diary or log of observations at the site, including interactions with all parties, results of field tests, concerns or discussions about conformance with the approved plans, and apparent deviations from the approved plans.
7. prepare letter reports documenting the sampling activities performed,
8. monitor RD field activities for compliance with the requirements of the Work plan and with the FFA or order.
9. review the sample analyses prepared by the federal facility or PRP and identify data gaps. This also includes conducting sample validation and lab audits to ensure that the analyses were carried out according to EPA guidelines and guidance.
10. review and provide comments to EPA on interim, draft, and final reports summarizing the results of sampling activities and data analyses performed for the pre-design and remedial design.
11. review preliminary, draft final, and final design documents.
12. provide technical support and comments on the development or review of RD-related documents such as contingency plans and operations and maintenance plans.
13. during the RD phase review for technical adequacy the following:
 - treatability studies,

- test plans and procedures,
 - pilot tests.
14. observe treatability studies. This includes observation of work efforts related to the conduct of laboratory screening, bench-scale and pilot-scale treatability studies.
 15. evaluate whether the treatability study Work Plan is followed.
 16. maintain a log which fully substantiates its position with regard to these apparent inconsistencies and submit this log to EPA as a part of the oversight report.
 17. observe the gathering of contaminated material for the study and evaluate whether the proper chain of custody and contaminants analysis procedures are employed prior to and after the material is treated.
 18. monitor the disposal of the investigation-derived waste, evaluate whether the federal and state off-site disposal requirements and policies are being addressed, and prepare a report.
 19. review treatability study test plans and procedures for technical adequacy and follow up with a written report(s).

D-2. Remedial Action Evaluations Task List

1. maintain a detailed log of all field observations, including all apparent incidents where there are activities not consistent with the Treatability Study Work plan.
2. review and monitor the performance of the remedial action. The Contractor shall:
 - review remedial activities and documents to evaluate and recommend whether they are consistent with the ROD, FFA, PRP order or consent decree, ARARs, approved design plans, specifications, Quality Assurance and Quality Control Plans, generally accepted engineering and construction practices, and applicable EPA policies.
 - assess whether the activity is performed in a manner protective of public health and the environment.
 - follow up with a written report(s)
3. review all deliverables submitted by the federal facility or PRP during the course of the remedial action. Reviews include the following:
 - Remedial Action Work plan and construction schedules for reasonableness in approach to the implementation of the remedial design within the terms of the FFA, order or consent decree;
 - Construction procurement specifications for technical adequacy and timeliness;
 - Change orders, work directives, and modifications made by the federal facility or PRP remedial action contractor for consistency with the FFA, order, or consent decree;
 - Shop/record drawings, change orders and modifications to the design plans and specifications;
 - Progress reports of the remedial action contractor and other reports on the schedule and progress of work;
 - Monitoring data submitted to evaluate if the action levels have been exceeded and

- if so, verifying that corrective actions were promptly taken;
 - Construction Quality Assurance Plan, Construction Health and Safety Plan and Operation and Maintenance and Monitoring Plan, if these documents are modified from those submitted during the RD phase; and,
 - Superfund Completion Report which documents the completion of the remedial action.
- 4. accompany EPA at the pre-construction conference, progress briefings, and other meetings to provide logistical and technical support on RA oversight
- 5. provide field construction oversight to monitor the general progress of the remedial action and make on-site observations of the work in progress
- 6. monitor adherence to the Health and Safety plan and development and implementation of the QA/QC plan.
- 7. provide support for field sampling activities. These activities shall include:
 - characterizing, or supporting in the characterization of, site conditions prior to remedial action
 - assess the degree of treatment achieved at each site in relation to the design for that site.
 - collecting and analyzing of air, soil, ground water, surface water and sediment.
 - radiation analysis will be required. This sampling includes both direct and oversight or split sampling activities to monitor the Federal facility's contractors.
 - record all details noted during each inspection and during sample collection efforts.
- 8. employ EPA-approved protocols for sample storage considerations, chain-of-custody, sample document forms, labels, and shipping requirements for all collected samples. The Contractor shall plan to utilize the Contract Laboratory Program or Regional laboratory for sample analyses.
- 9. prepare monthly letter reports documenting construction progress, change orders, any deviations from the FFA, order or consent decree, approved plans and specifications, and any other potential problems noted by oversight personnel.
- 10. attend the pre-final and final inspections to support EPA in reviewing the list of items requiring correction and verifying that all items have been completed or corrected.
- 11. document for EPA use all outstanding "punch list" items and any other items discussed during the inspection. The contractor shall format the "punch list" to facilitate its use as a guide and to document the results of any follow-up inspections .
- 12. coordinate independent sampling which will be used by EPA in evaluating compliance with the remedial design specifications and the cleanup standards identified in the ROD.
- 13. provide comparison reports of analytical results, with apparent areas of non-compliance clearly identified.

D-3. Post Remedial Action Activities

This support requires observing the initial operation of the plant, system, or process. This shall include observation of the start-up and shut down (including emergency shut down) and

routine operating procedures. The Contractor shall provide a detailed record of observations to the Agency. The Contractor shall :

1. coordinate conformational sampling.
2. Support EPA in performing five-year reviews in accordance with OSWER Directive 9355.7-02, Structure and Components of Five-Year Reviews. The Contractor shall consider all current and past remedial activities at the site. This shall include checking/monitoring the status of institutional controls to ensure that the controls are still in place and being tracked by the facility or service.
3. Review documents and site files, to become knowledgeable with the history and status of the site.
4. Review ARARs in the ROD(s) and the ROD Summary(ies) and review Federal, state, or local regulations related to public health or the environment, promulgated subsequent to the ROD, for changes in standards.
5. Conduct a management system review and technical compliance evaluation of specific elements of the remedial action required to protect human health and the environment.
6. Prepare a draft five-year review report or review a five-year review report, providing the information listed below. A discussion of the following shall be included in the report:
 - Background information, including an introduction;
 - Statement of remedial objectives;
 - Summary of findings;
 - Preparation of a review summary including technology recommendations, requirements for recommendation implementation and a general statement of protectiveness of the current remedy; and,
 - Summary of requirements to serve as the basis for subsequent five-year review, if required.

D-4 Oversight of Removal Actions

1. Provide on-site support for removal actions
2. Review Engineering Evaluation/Cost Analysis (EE/CA)
3. EPA activities listed under RI/FS oversight may also be classified as removals.

E. GENERAL NEGOTIATIONS SUPPORT

The task list below addresses the generic negotiations/ expert witness/litigation support tasks which may be ordered through work assignments. In no event will the contractor provide any legal services to the EPA. More specific requirements follow the generic list for:

- locating and securing qualified experts
- support in the preparation of technical documents

- support for Administrative Dispute Resolution
- support for Alternative Dispute Resolution (ADR)
- utilizing a database which will manage and track all supporting documentation

Support Task List

More specifically, the contractor shall:

1. locate and secure qualified experts, to support EPA actions in science, technical, financial, or other fields
2. provide EPA with appropriate resumes, and when there is more than one final candidate a rationale which discusses the basis for a recommendation of a final candidate
3. research and provide to the EPA Contracting Officer information regarding conflicts of interest that a potential expert may have
4. notify and coordinate with the EPA WAM if a candidate from EPA or another government agency is a possible final candidate for selection as an expert.
5. Scientific or technical experts shall:
 - prepare a written statement or affidavit describing the expert's background and education qualifications, publications, and experience in the field of hazardous waste;
 - visit the hazardous waste site and other locations pertinent to the site/case;
 - review government, PRP, and public comments and reports relevant to the site/case, including the administrative record, and provide an evaluation either orally or in writing;
 - review the literature for information relevant to the site/case;
 - participate as a technical advisor to EPA/DOJ in connection with negotiation/litigation;
 - present technical opinions and factual information in deposition of a case;
 - give testimony as an expert witness providing written or oral testimony in Federal court and/or administrative hearings; and,
 - perform tasks described elsewhere in this SOW.
6. Provide technical support in the preparation of documents for negotiations, including the scope and extent of technical requirements to be included in the scope of work;
7. provide technical support during PRP and FFA negotiations;
8. provide a technical review of federal facility or PRP offers and Work plans (this includes evaluating the technical and financial ability of the PRP to conduct the proposed response action);
9. provide technical support to EPA during the review of settlements,
10. publish the notices, meetings, and review and response to comments following EPA review and approval;
11. collect and develop technical information for the Agency's use in evaluating and preparing Non-binding Preliminary Allocations of Responsibility (NBARs) and for the

Agency's use in support for subpoenas.

12. coordinate natural resource damage determinations and NEPA related activities;
13. evaluate the federal facility's or PRP's Work plans with regard to the technical requirements and schedules set forth in pertinent legal documents such as the ROD, FFA, orders, and Decrees;
14. review of technical reports and other data submitted by a federal facility or PRP for scientific or engineering validity; and,
15. prepare draft summary documents of meetings between EPA and the federal facility or PRP representatives, and other related parties.
16. collect and summarize all available cost documentation incurred in the performance of this contract
17. provide technical support for the preparation of a written statement of dispute. Such support would consist of :
 - participating in meetings/conference calls
 - preparing draft technical memoranda.
 - Support of subject matter experts, as identified above, may be required
18. support EPA in the technical aspects of the dispute resolution process outlined in the Administrative Order on Consent or Consent Decree
19. prepare draft technical support documentation related to mediation, non-binding fact-finding, and non-binding arbitration (see "Final Guidance on Use of Alternative Dispute Resolution Techniques in Enforcement Actions" dated August 14, 1987).
20. be present during the ADR process to provide technical advice to EPA,
21. utilize a database which will manage and track all supporting documentation for negotiations, dispute resolution, or litigation

E-1. Expert Witness /Litigation Support

This support requires the contractor to locate and secure qualified experts, at times on short notice, to support EPA actions in science, technical, financial, or other fields.

E-2. Administrative Dispute Resolution

Administrative Dispute Resolution support requires:

- technical support to EPA in implementing Section 120 of SARA and the dispute resolution process outlined in a specific FFA or Memorandum of Understanding (MOU).
- for PRP (non-Federal) oversight assignments, support to EPA in the technical aspects of the Administrative Order on Consent or Consent Decree

E-3. Alternative Dispute Resolution

For PRP (non-Federal) oversight assignments, the Contractor shall:

- provide technical support EPA in implementing Section 122 of CERCLA and Alternative

- Dispute Resolution (ADR) actions
- draft technical support documentation related to mediation, non-binding fact-finding, and non-binding arbitration.

E-4. Document and Data Management

The contractor shall maintain a database to track correspondence, reports, pertinent samples, interviews, records, and other documents and data as requested by EPA.

F. OTHER TECHNICAL SUPPORT

The task list below addresses the generic other technical support tasks which may be ordered through work assignments in support of Section II. F. More specific requirements follow the generic list for:

- Provide technical support for development and implementation of community involvement activities at federal facilities
- Provide the services of a facilitator
- Technical and community involvement support on Base Closures
- Meeting support

Other Technical Support Task List

More specifically the contractor shall:

1. Provide technical support to EPA in the development, planning, and implementation of community involvement activities at federal facilities.
2. seek community comments on the alternative or recommended remedies.
3. prepare general or site-specific fact sheets;
4. provide technical support for planning and conducting public meetings and technical discussions involving the public;
5. provide technical support for planning and conducting:
 - public briefings,
 - conferences,
 - workshops,
 - site-specific/restoration advisory boards, and
 - training workshops;
6. writing and/or placing newspaper notices regarding the availability of site-specific related documents and schedules for public meetings.
7. provide the services of a facilitator for each partnering initiative called for by EPA, the facilitator is in a non-decisionmaking role,

8. provide team training, and federal facilities partnering workshops,
9. provide technical and community involvement support in:
 - identification and assessment of emerging waste management and clean-up technologies,
 - regulatory issues related to implementation of Base Closure Program,
 - effectiveness of remediation technology selection process,.
11. interface with EPA, state, and local officials, Federal agencies and affected communities.
12. develop and participate in federal facility or PRP work groups. These work groups may focus on a variety of issues, including such topics as value engineering and evolving or innovative treatment technologies.

F-1. Community Involvement Activities

The contractor shall perform public participation tasks to ensure that public and private interests are kept informed of response events and activities and that all parties' concerns are considered throughout the process.

The contractor shall perform public participation tasks in conformance with:

"Community Relations in Superfund: A Handbook", January 1992

"Public Participation Guidance for On-Scene Coordinators: Community Relations and the Administrative Record", OSWER Directive 9360-05, June 1992

Section 117 of SARA, the NCP, and

Superfund Community Involvement Handbook and Tool Kit (1998)

in the planning and implementation of community involvement activities.

F-2. Partnering

EPA utilizes partnering as a means of bringing about renewed understanding of common goals and priorities, faster, more-effective completion of cleanups, greater benefit to the community, a greater sense of mutual trust and cooperation, and shared goals and schedules.

For each partnering initiative called for by EPA, the Contractor shall provide the services of a facilitator. Partnering initiatives may typically consist of some initial planning or scoping session(s), possibly including team training exercises, followed by periodic facilitated working meetings, that may also include team building exercises.

F-3. Base Closure

The Contractor shall provide technical and community involvement support in:

- identification and assessment of emerging Federal waste management and clean-up technologies
- regulatory issues related to implementation of the Base Closure Program,
- the effectiveness of remediation technology selection process, and other site specific issues.
- interface will be required with EPA, state and local officials, Federal agencies and affected communities.

F-4. Project-Specific Technical Support

The Contractor shall be required to provide specific technical support on a case-by-case basis including:

- Meeting Support- logistical support to EPA in the preparation for, and the conduct of, meetings on such topics as community involvement, technology transfer, alternative remedial technologies and RODs, as well as progress briefings and other meetings relevant to the site WA.
- Federal Facility or PRP Work Groups- develop and participate in Federal facility or PRP work groups.
- Analysis of innovative characterization and remedial technologies -analyze innovative characterization and remedial technologies proposed for use at Federal facilities or other Superfund sites. Review test plans and conceptual design reports, as well as the results of initial work efforts.

G. Sampling/Analytical Support Services and Data Management

The task list below addresses the generic sampling and data management support tasks which may be ordered through work assignments in support of all activities in the Statement of Work. More specific requirements follow the generic list for:

- Provide sampling and analytical support,
- provide long term monitoring support
- collect environmental samples.

Support Task List

More specifically, the contractor shall:

1. Perform tasks such as:
 - field sampling
 - ground water sampling
 - surface soil sampling
 - soil boring sampling

- permeability sampling
 - surface water and sediment sampling
 - air monitoring and biota sampling
2. perform split sampling on task #1 above
 3. provide coordination support between EPA and the CLP program by:
 - preparing Unique Laboratory Sample Analysis (ULSA) requests,
 - performing sample preparation and shipment.
 4. provide data validation capabilities (process by which the quality of the data and chain of custody are verified) and review of the usability of the data.
 5. compile analytical data. Typical activities shall include data reduction and tabulation and data evaluation and formatting the data for input into a Regional database.
 6. review all Federal facility or PRP records containing information on analytical analyses performed, and convert this information to the format needed for entry into EPA's CLP/non-CLP analytical services tracking system.
 7. provide tracking information to the EPA on a monthly basis.
 8. provide for NON-CLP analysis when require.

G.1 Sampling/Analytical Support Services

I. Quality Assurance Requirements

The following Quality Assurance requirements will apply to all tasks and work assignments issued under this contract.

- prepare a Quality Management Plan (QMP), according to the format and content listed in:

ANSI/ASQC-E4 AMERICAN NATIONAL STANDARD Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, and

EPA QA/R-2 EPA Requirements for Quality Management Plans

- review the QMP on an annual basis to determine if the QMP needs to be updated. Any updates shall be submitted for approval by EPA Regional Quality Assurance manager.
- prepare a generic Quality Assurance Project Plan (QAPP), and submit it for review by EPA Quality Assurance manager, prior to any environmental data collection activities under the contract. The generic QAPP shall be prepared in accordance to:

EPA QA/R-5 EPA Requirements for Quality Assurance Project Plans, and

EPA QA/G-5 Guidance on Quality Assurance Project Plans

- The QAPP or associated Standard Operating Procedures shall describe all sampling and

- analysis procedures used by the contractor when performing work under this contract.
- prepare and submit for EPA critical review and approval, general Standard Operating Procedures (SOPs) that the contractor will follow for environmental data collection activities
- prepare site-specific Quality Assurance Project Plans for tasks that involve environmental data collection activities. Site-specific QAPPs shall be approved by EPA QA personnel prior to the start of any environmental data collection activities.
- perform periodic management system reviews or other QA audits of their internal QA systems and program for this contract. The findings of the QA reviews shall be provided to the EPA Regional QA manager.

The Contractor shall conduct quality assurance activities in accordance with its EPA approved QAPP and QAPjP. These plans shall be consistent with QA/G-2: EPA Guidance on Preparing Quality Assurance Program Plans, QA/R-5: EPA Guidance on Preparing Quality Assurance Project Plans, and QA/G-4: EPA Guidance for the Data Quality Objectives Process, EPA QA/G-5 Guidance on Quality Assurance Project Plans or other specified guidance.

G.2 Data Management Services

The contractor shall:

- provide support in developing automated and written management information systems and record management systems in support of the internal management of the Superfund program.
- develop, maintain, enhance and operate regional tracking systems, databases, spreadsheets, reporting systems and subroutines for conversion of existing data between systems.
- Provide support in developing, preparing, and modifying draft GIS reports for sites in the Superfund program.
- provide support utilizing information stored in CERCLIS III, mainframe LAN/WAN information system and databases, and any other related databases or information management systems.

H. Unexploded Ordnance (UXO)

The task list below addresses the generic oversight tasks which may be ordered in support of UXO oversight support. The Contractor shall perform the following tasks with regard to UXO:

- UXO detection and avoidance support
- safety escorts for initial site characterizations such as
 - PA/SIs,
 - removal assessments,

- RIs, RFAs, and RFIs.
- technical review of proposed UXO cleanup actions on CERCLA removal and remedial actions, RCRA CMS, and RCRA Subpart X permitting for open burn/open detonation (OB/OD).
- evaluation of demilitarization vs. OB/OD options for waste munitions and UXO.
- field oversight on CERCLA removal and remedial actions and RCRA Subpart X permit compliance.
- RCRA Munitions Rule compliance support.
- independent quality assurance for UXO clearance operations for CERCLA removal and remedial actions and RCRA corrective actions.
- Range Rule compliance support.
- Archival search report review and summarization
- Analysis of potential for environmental release and persistence of chemicals related to explosives
- chemical warfare agent analysis
- risk assessments based on industry standards for the UXO and residual chemicals